

14. (Amended) The retroviral vector of claim 13, wherein the truncated transmembrane envelope protein is an HIV truncated transmembrane envelope protein.

15. (Amended) The retroviral vector of claim 13, wherein (a) the full-length surface envelope protein is an HIV type 1 or an HIV type 2 surface envelope protein or an SIV surface envelope protein and (b) the transmembrane envelope protein is an HIV type 1 or an HIV type 2 transmembrane envelope protein or an SIV transmembrane envelope.

16. (Amended) The retroviral vector of claim 13, wherein the C-terminus of a truncated transmembrane envelope protein of HIV or SIV is fused to a fragment of an MLV transmembrane envelope protein.

17. (Amended) A method for preparing a packaging cell that produces a retroviral vector, the method comprising transfecting a cell with

- (i) a psi-negative expression construct comprising a *gag* gene and a *pol* gene of murine leukemia virus (MLV);
- (ii) a psi-positive expression construct encoding a desired gene product; and
- (iii) a transcriptional cassette encoding an envelope protein of human immunodeficiency virus (HIV) or simian immunodeficiency virus (SIV), thereby generating a packaging cell that produces a retroviral vector comprising a viral core of MLV and a virus envelope comprising an envelope protein of HIV or SIV.

18. (Amended) A method for preparing a packaging cell that produces a retroviral vector, the method comprising:

obtaining a cell of a packaging cell line comprising a *gag*-gene and a *pol*-gene of murine leukemia virus (MLV) and an expression construct encoding a therapeutic gene, a reporter gene, or a biologically active fragment of a therapeutic or reporter gene; and

transfecting the cell of the packaging cell line with a construct comprising a transcriptional cassette encoding an envelope protein of human immunodeficiency virus (HIV)

or simian immunodeficiency virus (SIV), thereby generating a packaging cell  
that produces a retroviral vector comprising a viral core of MLV and a virus envelope  
comprising an envelope protein of HIV or SIV.

19. (Amended) The method of claim 18, whereby the cell of the packaging cell line to be  
transfected is a cell of the packaging cell line TELCeB6.

20. (Amended) The method of claim 17, wherein the envelope protein is encoded by a  
vector comprising pL $\beta$ Ac/env-Tr712-neo.

21. (Amended) A packaging cell prepared by the method of claim 17.

22. (Amended) A composition comprising a retroviral vector of claim 13, wherein the  
retroviral vector further comprises a therapeutic gene, a reporter gene, or a biologically active  
fragment of a therapeutic gene or reporter gene, wherein the vector mediates the transfer of the  
therapeutic gene, the reporter gene, or the fragment of the therapeutic gene or reporter gene into  
a CD4-positive cell of a mammal.

28. (Amended) A composition comprising a retroviral vector of claim 13, wherein the  
vector further comprises a foreign gene or a fragment thereof.

30. (Amended) A method of treating a human immunodeficiency virus (HIV) infection  
in an individual; the method comprising

providing a retroviral vector of claim 13;

inserting into the retroviral vector a sequence encoding an antisense molecule, a sequence  
encoding an RNA decoy, or a sequence comprising a transdominant-negative mutant gene of  
HIV or of another lentivirus, thereby producing a retroviral vector that inhibits HIV; and

transfecting CD4-positive cells of the individual with the retroviral vector that inhibits  
HIV, thereby treating the HIV infection.

31. (Amended) A method of treating a genetic disorder in an individual, the method comprising

providing a retroviral vector of claim 13;

3 inserting into the retroviral vector a gene or a fragment thereof encoding an biologically active polypeptide, thereby producing a therapeutic retroviral vector; and

transducing cells of the individual with the therapeutic retroviral vector to transfer the foreign gene or the fragment thereof into the cells, thereby enabling the cells to express the biologically active polypeptide, thereby treating the genetic disorder. --

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Please add new claims 32-35.

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--32. (New) The composition of claim 22, wherein the CD4-positive cell is a human cell.

33. (New) The composition of claim 28, wherein the CD4-positive cell is a human cell.

Q 4 34. (New) The retroviral vector of claim 15, wherein the SIV surface envelope protein is an SIV surface envelope of *Cerecopithecus aethiops* (SIVagm), *Macaca mulatta* (SIVmac), *Pan troglodydytes* (SIVcpz), *Cerecopithecus mitis* (SIVsyk), *Papio sphinx* (SIVmnd), *Cercocebus atys* (SIVsm), or *Macaca nemestrina* (SIVmne), and the SIV transmembrane envelope protein is an SIV transmembrane envelope of *Cerecopithecus aethiops* (SIVagm), *Macaca mulatta* (SIVmac), *Pan troglodydytes* (SIVcpz), *Cerecopithecus mitis* (SIVsyk), *Papio sphinx* (SIVmnd), *Cercocebus atys* (SIVsm), or *Macaca nemestrina* (SIVmne).

35. (New) The method of claim 17, wherein the envelope protein is encoded by a vector comprising pRep  $\Delta 16$  env, pRep  $\Delta 7$  env, pRep  $\Delta 0$  env, pRep  $\Delta 7MLV$  env, or pRep  $\Delta 0MLV$  env.--

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